

Application No. 10/031,940
Attorney Docket No. PG3736USW

Amendments to the Claims:

Please amend the claims as follows:

Claim 1 (Currently amended): A valve comprising:

a valve body defining a metering chamber in communication with a dispensing passage; and,

a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to

a first sealing ring including a first sealing portion and a first wiper portion, wherein a stem-receiving part of the first sealing portion contacts a first surface of the valve stem, wherein a stem-receiving part of the first wiper portion contacts a second surface of the valve stem, and wherein there is an enclosed space between the first sealing portion, the first wiper portion, and a valve stem surface between the first surface of the valve stem and the second surface of the valve stem

~~wherein the sealing ring further includes a first wiper adapted to wipe the valve stem.~~

Claim 2 (Currently amended): The valve according to claim 1, further including:

a sampling chamber; and,

a second sealing ring including a second sealing portion,

wherein, in a valve-closed position, the dispensing passage is isolated from the metering chamber and the metering chamber is in communication with the sampling chamber via said transfer passage,

wherein, in the valve-open position, the dispensing passage is in communication with the metering chamber and the transfer passage is isolated from the metering chamber, and,

wherein the second sealing ring further includes a second wiper portion adapted to wipe the valve stem.

Claim 3 (Currently amended): The valve according to claim 1, wherein the first ~~and/or~~ second wiper portion is integral to the first ~~and/or~~ second sealing ring, ~~respectively.~~

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Claim 4 (Currently amended): The valve according to claim 1 2, wherein the first ~~and/or second~~ wiper portion is in curved contact with the valve stem ~~includes first and/or second curved portions, respectively.~~

Claim 5 (Canceled)

Claim 6 (Currently amended): The valve according to claim 1 5, wherein the first ~~and/or second~~ sealing portion includes a ~~include first and/or second~~ square cut edge ~~edges, respectively.~~

Claim 7 (Currently amended): The valve according to claim 1 2 wherein the first ~~and/or second~~ sealing portion includes a ~~portions include first and/or second~~ rounded edge ~~edges, respectively.~~

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Claim 8 (Currently amended): The valve according to claim 1 2, wherein the first ~~and/or second~~ wiper portion includes a tapered portion ~~includes first and/or second tapered portions, respectively.~~

Claim 9 (Currently amended): The valve according to claim 1 2, further including a first ~~and/or second~~ layer of rigid material supporting the first ~~and/or second~~ wiper and sealing portion, ~~respectively.~~

Claim 10 (Currently amended): The valve according to claim 9 wherein the ~~first~~ ~~and/or second~~ layer is constructed from a material selected from the group consisting of a polybutylteraphthlate, polyoxymethylene, metal and nylon.

Claim 11 (Currently amended): The valve according to claim 1 2, wherein the first ~~and/or second~~ sealing portion ~~portions~~ includes a ~~include first and/or second~~ lobed portion ~~portions, respectively.~~

Claim 12 (Cancelled)

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Claim 13 (Currently amended): The valve according to claim 1 ~~2~~, wherein the first ~~and/or second~~ sealing ring is constructed by moulding.

Claim 14 (Currently amended): The valve according to claim 13, wherein the first ~~and/or second~~ sealing ring is made by compression moulding or injection moulding.

Claim 15 (Currently amended): The valve according to claim 1 ~~2~~, wherein the first ~~and/or second~~ sealing ring is formed from an elastomeric material.

Claim 16 (Previously amended): The valve according to claim 15 wherein the elastomeric material is selected from the group consisting of:

a copolymer of about 80 to about 95 mole% ethylene and about 5 to about 20 mole% of one or more of 1-butene, 1-hexene and 1-octene;

a styrene-ethylene/butylene-styrene block copolymer;

an ethylene propylene diene rubber;

a styrene-ethylene/butylene-styrene dispersed in a polypropylene or polyethylene matrix;

a butyl polyethylene;

a butyl-polypropylene; and

mixtures thereof.

Claim 17 (Currently amended): The valve according to claim 1 ~~2~~, wherein the first ~~and/or second~~ sealing ring is fixed relative to the valve body.

Claim 18 (Currently amended): The valve according to claim 17, wherein the first ~~and/or second~~ sealing ring is fixed within a cavity in the valve body.

Claim 19 (Cancelled)

Claim 20 (Cancelled)

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Claim 21 (Currently amended): A drug product comprising:

an aerosol container in communication with
a valve according to claim 1 ~~body defining a metering chamber in~~
~~communication with a dispensing passage; and,~~
~~a valve stem having a dispensing passage and a transfer passage, the valve~~
~~stem contacting and slidably movable with respect to~~
~~a first sealing ring including a first sealing portion;~~
~~wherein the sealing ring further includes a first wiper adapted to wipe the valve~~
~~stem.~~

Claim 22 (Previously amended): The drug product of claim 21, further comprising a suspension of medicament in a propellant contained within the aerosol container.

Claim 23 (Previously amended): The drug product according to claim 22, wherein the propellant is liquified HFA134a or HFA-227 or mixtures thereof.

Claim 24 (Previously amended): The drug product according to claim 22, wherein the medicament is selected from the group consisting of albuterol, salmeterol, fluticasone, beclomethasone, salts, esters or solvates thereof, and combinations thereof

Claim 25 (Previously amended): The drug product according to claim 24 wherein the medicament comprises salmeterol xinafoate and fluticasone propionate.

Claim 26 (New): The valve according to claim 1, wherein the first sealing ring includes a second wiper portion.

Claim 27 (New): A valve comprising:

a valve body defining a metering chamber in communication with a dispensing passage; and,

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a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to

a sealing ring including a sealing portion and a wiper portion, wherein the wiper portion is in curved contact with the valve stem.

Claim 28 (New): The valve according to claim 27, wherein the wiper portion is integral to the sealing ring.

Claim 29 (New): The valve according to claim 27, wherein a stem-receiving part of the sealing portion that contacts the valve stem has a rounded edge.

Claim 30 (New): The valve according to claim 27, wherein a layer of rigid material is positioned between the sealing portion and the wiper portion.

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Claim 31 (New): The valve according to claim 30, wherein the layer is constructed from a material selected from the group consisting of a polybutylteraphthlate, polyoxymethylene, metal and nylon.

Claim 32 (New): The valve according to claim 27, wherein the sealing ring includes a first wiper portion and a second wiper portion.

Claim 33 (New): The valve according to claim 27, wherein the sealing ring comprises an elastomeric material.

Claim 34 (New): A drug product comprising:
an aerosol container in communication with
a valve according to claim 27.

Claim 35 (New): The drug product according to claim 34, further comprising a suspension of medicament in a propellant contained within the aerosol container.

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Claim 36 (New): The drug product according to claim 35, wherein the propellant is liquified HFA134a or HFA-227 or mixtures thereof.

Claim 37 (New): The drug product according to claim 35, wherein the medicament is selected from the group consisting of albuterol, salmeterol, fluticasone, beclomethasone, salts, esters or solvates thereof, and combinations thereof.

Claim 38 (New): A valve comprising:

a valve body defining a metering chamber in communication with a dispensing passage; and,

a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to

a sealing ring including a sealing portion, a wiper portion, and a layer of supporting rigid material positioned between the sealing portion and the wiper portion.

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Claim 39 (New): The valve according to claim 38, wherein the layer is constructed from a material selected from the group consisting of a polybutylteraphthlate, polyoxymethylene, metal and nylon.

Claim 40 (New): The valve according to claim 38, wherein a stem-receiving part of the sealing portion contacts a first surface of the valve stem, a stem-receiving part of the wiper portion contacts a second surface of the valve stem, and there is an enclosed space between the sealing portion, the wiper portion, and a valve stem surface between the first surface of the valve stem and the second surface of the valve stem, and wherein the wiper portion is in curved contact with the valve stem.

Claim 41 (New): The valve according to claim 38, wherein the wiper portion is integral to the sealing ring.

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Claim 42 (New): The valve according to claim 38, wherein a stem-receiving part of the sealing portion contacts the valve stem and has a rounded edge.

Claim 43 (New): The valve according to claim 38, wherein the sealing ring includes a first wiper portion and a second wiper portion.

Claim 44 (New): The valve according to claim 38, wherein the sealing ring comprises an elastomeric material.

Claim 45 (New): A drug product comprising:
an aerosol container in communication with
a valve according to claim 38.

Claim 46 (New): The drug product according to claim 45, further comprising a suspension of medicament in a propellant contained within the aerosol container.

Claim 47 (New): The drug product according to claim 46, wherein the propellant is liquified HFA134a or HFA-227 or mixtures thereof.

Claim 48 (New): The drug product according to claim 46, wherein the medicament is selected from the group consisting of albuterol, salmeterol, fluticasone, beclomethasone, salts, esters or solvates thereof, and combinations thereof.

Claim 49 (Re-presented - formerly dependent claim 13): A valve comprising:
a valve body defining a metering chamber in communication with a dispensing passage;
a sampling chamber;
a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to
a first sealing ring including a first sealing portion; and
a second sealing ring including a second sealing portion;

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wherein, in a valve-closed position, the dispensing passage is isolated from the metering chamber and the metering chamber is in communication with the sampling chamber via said transfer passage;

wherein, in the valve-open position, the dispensing passage is in communication with the metering chamber and the transfer passage is isolated from the metering chamber;

wherein the first sealing ring further includes a first wiper portion adapted to wipe the valve stem;

wherein the second sealing ring further includes a second wiper portion adapted to wipe the valve stem; and

wherein the first and/or second sealing ring is constructed by a moulding process.

50 (New): A valve comprising:

a valve body; and

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a valve stem having a dispensing passage, and, contacting said valve stem, a sealing ring including a sealing portion; the valve stem being slidably movable relative to the sealing ring from a valve-closed position to a valve-open position in which the interior of the valve body is in communication with the dispensing passage, wherein the sealing ring further includes a wiper portion configured to wipe the valve stem on sliding movement of the valve stem relative to the sealing ring, wherein the sealing portion presents a sealing surface in sealing engagement with the valve stem, wherein the wiper portion presents a wiper surface in wiping engagement with the valve stem, and wherein the sealing ring further has a void portion which is juxtaposed to the valve stem and located between the sealing and wiper surfaces for spatial separation of the sealing and wiper surfaces.

51 (New): The valve according to claim 50, wherein the wiper portion is an integral part of the sealing ring.

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52 (New): The valve according to claim 50, wherein the wiper portion is in curved contact with the valve stem.

54 (New): The valve according to claim 50, wherein the sealing surface and the wiping surface have rounded edges.

55 (New): The valve according to claim 50, wherein the seal and wiper are spaced apart by a layer of supporting rigid material.

56 (New): The valve according to claim 56, wherein the rigid material is selected from the group consisting of polybutylteraphthalate, polyoxymethylene, a metal and nylon.

57 (New): The valve according to claim 50, wherein the sealing ring comprises a first wiper and a second wiper.

58 (New): The valve according to claim 50, wherein the sealing ring comprises an elastomeric material.

59 (New): A drug product comprising:
an aerosol container in communication with
a valve according to claim 50.

Claim 60 (New): The drug product according to claim 59, further comprising a suspension of medicament in a propellant contained within the aerosol container.

Claim 61 (New): The drug product according to claim 60, wherein the propellant is liquefied HFA134a or HFA-227 or mixtures thereof.

Claim 62 (New): The drug product according to claim 60, wherein the medicament is selected from the group consisting of albuterol, salmeterol, fluticasone, beclomethasone, salts, esters or solvates thereof, and combinations thereof.